

REMARKS

Favorable reconsideration of this application is requested in view of the foregoing amendments and the following remarks. Claims 1-2, 5-17 and 24-29 are pending in the application. Claims 3-4 and 18-23 were previously canceled without prejudice or disclaimer.

The claims are amended in order to more clearly define the invention, support for which is found in the figures (especially Figs. 1b and 4) and related parts of the specification.

Specifically, support for reciting sequentially searched is found in figure 4, especially blocks 4500 and 4600 (see also the associated description at page 12, lines 5-7). Support for reciting independent of attributes of the computing task and the client is found at page 9, lines 5-8 and page 12, lines 5-7. Support for reciting matching an attribute of the second server to user attributes is found at page 11, lines 16-20. Support for reciting matching an attribute of the second server to server attributes is found at page 11, lines 22-23 and page 12, lines 1-2.

The abstract is amended to more accurately describe the presently claimed invention. Support for the amendment to the abstract is found at page 9, lines 5-8 and page 12, lines 5-7.

Claims 1-17 and 24-29 were rejected under 35 USC 103 as obvious over Logston et al. (US Pat. No. 6,687,735, hereinafter Logston) in view of Armentrout et al. (US Pat. No. 6,463,457, hereinafter Armentrout) further in view of McCanne et al. (US Pat. No. 6,415,323, hereinafter McCanne). With regard to the claims as amended, this rejection is untenable.

Logston and/or Armentrout do not describe or teach a first distributor server set and a second distributor server set coupled to the first distributor server set. Logston and/or Armentrout do not describe or teach that a first distributor server set redirects the computing task to the first server of the second distributor server set and that the first server allocates the computing task to the second server that executes the allocated computing task.

McCanne discloses the notion of "service access points" (column 6, lines 5-14).

However, there is a very significant and important distinction between McCanne and the claimed invention. McCanne states in column 6, lines 5-7 that “[a]nother advantage ... is that clients attach to the content distribution network at explicit, per-client service access points.” McCanne drives home this notion of an “explicit, per-client service access point” at column 19, lines 14-26, where he states “The ARN 908 may redirect the client 950 to one of the local service nodes (912,914), however, the DB 910 associated with ARN 908 shows that the local service nodes may not be able to provide the requested services to client 950. The ARN 908 is able to use the information DB 910 to determine which service node would be most appropriate to handle the request from client 950” (where ARN stands for Anycast Referral Node). This means that each and every one of the service access points has a complete database.

In contrast to McCanne, this application describes on page 9 lines 4-11, “[f]or example, distributor manager 52 will search the server database 54 to find a fulfillment server from the plurality of fulfillment servers 100 200 300 400 that match the attributes of the computing task and the client. If no suitable fulfillment server is found, a server selector will re-direct the computing task to another distributor server 60.” The claimed invention recites this important distinction as sequentially searching and this distinction is significant. In more detail, a client request sent to McCanne’s ARN is immediately fulfilled by locating an appropriate service node through the complete DB attached to that particular ARN. In contrast to McCanne, a client request according to the claimed invention is serially passed among members of the distributor server sets as each of the members is sequentially searched. The request is passed to the next distributor sever in the set (if an attribute satisfactory fulfillment server is not found in the database associated with the current distribution manager) until an appropriate distribution manager is located.

The differences between McCanne and the claimed invention can have dramatic effect in real terms. In McCanne, the ARNs and associated DBs must be updated on a continuous basis

in order to function properly. A problem with McCanne's approach is that it adds an overhead of traffic to the network during DB synchronization. The advantage of McCanne, however, is one-step access to the client request. The claimed invention on the other hand requires that requests from clients be sequentially forwarded to different distribution managers until an appropriate fulfillment server is found.

In deployments, where the distribution managers / ARNs and fulfillment servers / service nodes are in close proximity (as in an ASP), the claimed invention will be more efficient than McCanne, because there is less traffic on the network associated with updating / synchronizing the databases and the additional time associated with finding a fulfillment server / service node will be negligible. In situations where the distribution managers / ARNs are spread far and wide, McCanne could result in better client response times. However, in these situations, McCanne will be sacrificing network bandwidth because ALL of the McCanne service nodes must send information to ALL of the McCanne ARNs.

To illustrate the significant differences and advantages of this application over McCanne, please consider the following example:

Let z represent the amount of information transferred by a distribution servers / ARNs to the distribution servers / ARNs. Assume there are 2 sets of 4 fulfillment servers / service nodes (for a total of 8) and there are 2 distribution servers / ARNs. Without loss of generality, assume that the distribution servers / ARNs transmit their status at the same time.

In the case of McCanne, the amount of information sent at status transmission time is $16z$ because each of the 8 fulfillment servers / service nodes must transfer information to 2 distribution servers / ARNs.

In the case of the claimed invention, assume that each set of 4 fulfillment servers / service nodes is attached to a single distribution server / ARN. In this case, the amount of information sent at status transmission time is $8z$ because each distribution server / ARN is

connected to only 4 fulfillment servers / service nodes (i.e., 2x4 or 8 pieces of information). Therefore, in this example, the claimed invention is 100 percent more bandwidth efficient with regard to status overhead than McCanne.

The claimed invention is not disclosed or suggested by Logston, Armentrout and/or McCanne because none of these references, alone or in combination, describes or teaches sequentially searching two different distributor server sets.

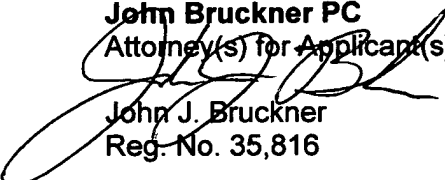
Accordingly, withdrawal of this rejection is respectfully requested.

Other than as explicitly set forth above, this reply does not include acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. In view of the above, all the claims are considered patentable and allowance of all the claims is respectfully requested. The Examiner is invited to telephone the undersigned (at direct line 512-394-0118) for prompt action in the event any issues remain that prevent the allowance of any pending claims.

In accordance with 37 CFR 1.136(a) pertaining to patent application processing fees, Applicant requests an extension of time from September 17, 2005 to October 17, 2005 in which to respond to the Office Action dated June 17, 2005. A notification of extension of time is filed herewith.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3204 of John Bruckner PC.

Respectfully submitted,

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Dated: Oct 17, '05
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